

# TRANSCUTANEOUS PACING

## OVERVIEW:

Transcutaneous Pacing is a method of applying electrical energy to a patient's chest and through the patient's heart in order to stimulate contraction. Many paramedic providers prefer TCP to other medication-based treatments of bradycardia because of the amount of control provided to the provider. Providers should never forget that TCP is very painful and patients should be sedated before or soon after TCP is initiated.

## INDICATIONS:

- ❑ Patients who are exhibiting hemodynamically unstable bradycardia (heart rate <60)
  - Patients are considered unstable if they display one or more of the following:
    - Altered mental status
    - Syncope
    - Hypotension
    - CHF
  - In most situations, transcutaneous pacing is usually reserved for patients unresponsive to pharmacologic intervention (e.g., Atropine)

## CONTRAINDICATIONS:

- ❑ Patients presenting in Asystole/PEA
- ❑ Patient with penetrating or blunt trauma

## PROCEDURE:

- ❑ Explain procedure and reassure patient
- ❑ Initiate sedation with **Midazolam 2.5mg – 5mg IV/IO/IN/IM**
  - May defer sedation if patient's level of hemodynamic instability requires immediate intervention – administering after initiating procedure is acceptable.
- ❑ Place EKG electrodes and pacing pads on patient in accordance with manufacture's recommendation for the cardiac device being used.
  - Anterior/Lateral or Anterior/Posterior
- ❑ Activate the pacing mode and ensure the device is sensing patient's intrinsic rhythm.
- ❑ Set pacer rate for 80 beats/minute or 120 beats/minute for pediatric patient
- ❑ Begin recording rhythm
- ❑ Gradually increase the current until 'electrical' capture is recognized
- ❑ Once electrical capture is achieved, check for mechanical capture
  - Observe patient for changes
    - Palpable pulses
    - Improved Mental status
    - Improvements in Blood pressure

## CONSIDERATIONS:

- ❑ Document EKG rhythm before and after pacing
- ❑ Pacing is not indicated in severe generalized hypothermia